OUR SCOTERS.

BY G. TRUMBULL.

HAVING devoted a good deal of time to the study of these birds, I venture to call attention to numerous errors which have appeared, and to certain facts which have not appeared, concerning them. It is my intention, however, to devote the present article more particularly to the American Scoter, and to follow it at a later date with additional notes concerning the White-winged and Surf Scoters. The colors (in a marked degree transitory after death) of the bills, eyes, and feet, I have noted in each case within a very few minutes after the bird was shot.

It seems strange we should so long have neglected to familiarize ourselves more fully with the colors and certain other characteristics of these widely distributed and easily secured species. They present such exceptionally favorable opportunities for study, particularly along our sea coast, where in spring and fall men and boys slaughter them by hundreds and cripple them by thousands. They are also reached without much difficulty during the winter months, and a few, as is well known, tarry with us throughout the summer.*

AMERICAN SCOTER (Oidemia americana).

Though the inaccuracies of former descriptions, to which I would here point, are but indirectly connected with the plumage, perhaps I had better describe, with the exception of the well-known dress of the adult male, *all* the variations in this bird's appearance which I have myself noted. Indeed I do not see how I can well emphasize facts which should be emphasized, without being thus tiresome.

I have failed to witness most of the phases through which the male's bill passes while developing from the form of the female's into the swollen dimensions and brilliant coloring of the old

* Some of those which remain are probably of the superannuated and sterile class, but very many of them are convalescent or recovered survivors of the last shooting season, pensioners, as the gunners call them, which at the time of the vernal migration were in too crippled a condition to fly with their fellows.

drake's, and I am unfamiliar with other intermediate aspects between chickenhood and maturity. It is therefore among the possibilities that during some of these intermediate variations certain tints very different from those I have observed may be developed and retained for a time. Yet, after examining a large number of specimens in both spring and fall, I cannot believe that any of the statements which I quote from others as erroneous concerning this species (and *deglandi* and *perspicillata*) will ever be proved to be other than practically erroneous by any amount of additional material.

*Adult male.** — Bill, in front of nostrils and narrowly along the sides, pure black; the remainder, which includes the bulging part or hump, light lemon or canary yellow, richly dyed at the sides with scarlet vermilion, deeply at and near the nostrils, and lightly (the reddish glow becoming lighter and more yellowish) toward the base; this bright coloration meeting the black of both bill and plumage abruptly. Though the red color at the sides of the bill is never continued farther forward than the nostrils, the yellow — between the nostrils — is sometimes extended beyond them for an eighth of an inch, and in such specimens the black along the sides or edge of the bill is narrower. All the drakes that I have examined whose bills are thus more broadly brilliant are to some extent larger than the others, and represent, I imagine, the very highest degree of maturity. Again, in some of those specimens which I regard as less thoroughly developed, the yellow does not quite fill the space between the nostrils, but leaves at each side — at the edge of each nostril — a narrow line of black. Eyes deep brown. Feet dark brown shaded with black; webs black. It may be stated here once for all that the eyes of the males, old and young, as well as those of the females, are deep brown — the species differing in this respect from *deglandi* and *perspicillata*.

Adult female in spring.† — Plumage practically brown all over, but this color blackening here and there, particularly upon the upper parts, and paling to buff and sometimes, very narrowly, to a still lighter tint at the edges or ends of the feathers; the lower surface of the body a trifle lighter than the upper, and a trifle more grayish; the sides of the head below the eye, and the throat, continuously gray, or dull white faintly and minutely flecked with dusky brown; this gray part (referred to hereafter simply as the light part of the head) meeting rather abruptly the dark brown which extends over the upper part of the head and along the nape. Bill black or blackish, irregularly *marked with yellow*, this color often beginning on the culmen between, or a trifle in front of, the nostrils, and continuing patchily toward the base in two diverging streaks; in other specimens the yellow is almost or wholly confined to the sides of the bill, and runs back-

*Described from specimens killed April 18 and 19.

†Described from specimens killed April 12.

ward in a scratchy fashion from the nostrils. I have found this yellow marking — though varying greatly in extent and continuity — on the bills of all the females of this plumage which I have examined. I was inclined to believe these birds young males — the bill of the female having been always described as uniformly black or blackish — until they were opened and their sex was determined. Feet warm olive brown with blackish shading, or, to be more exact, olive brown shaded with black on the inner side (or side of tarsus and toes next the other foot), and almost solidly black on the outer side; webs also black.

*Young female in autumn.** — Light part of head considerably lighter, contrasting very strongly with the deep brown above, the throat almost evenly pale buff or dull whitish; the lower plumage considerably lighter than the upper parts and more gray, the lower surface of the body very pale, approaching whitish, and faintly spotted with the brown or grayish brown of the fore breast and posterior region. Feet as before; bill grayish black.

*Young male in autumn.** — Like young female just described, but somewhat more whitish and more spotty below; the bill showing no indication of its future hump.

Young female in spring. — Younger at least than the more uniformly brownish females to which the term 'adult' is attached, and more mature than those described under the heading 'Young female in autumn.' Lower surface of body with a great deal of white, and more boldly spotted, with deeper and less grayish brown than the younger (male and female) birds of autumn. Light part of head as in adult female. Bill uniformly blackish, or generally so, sometimes showing a very little of the older bird's yellow. I have noted the presence of this yellow on but two of these young females, and in each case it was as a hardly noticeable spot or speck above the nostrils. With these exceptions there was but little variation among a large number shot April 12.

The basal portion of the adult male's bill has been described as "orange," "entirely orange," "orange yellow," "bright orange (yellowish in the dried skin)," "yellow or orange," etc. It is not surprising that the term 'orange' should have been employed, as some of the color on the side of the hump is somewhat like the color of some oranges; but the most conspicuous part of the reddish color is too pure, too decided a red, to be so termed, and the chief, most noticeable color of the bill (the light yellow part) has not the least suggestion in it of an orange tint. So if we permit the term 'orange' (for this reddish color) to pass unchallenged, the bill is still yellow rather than orange, and most surely it is not "entirely orange," neither is it "orange yellow" nor "yellow

*Described from early October specimens.

or orange," but yellow *and* orange. It may be added that the reddish color becomes more orangey (and the light yellow above somewhat less pure) within a little time after the bird has been killed. I have myself used the term 'orange' for the red of this bill in a description which was written when none but stale specimens, or those which had been killed two or three days, were at hand.

One author describes "the swollen basal portion" as "red to beyond the nostrils," but as he makes no mention of the yellow, and as the red never does extend beyond the nostrils, his description cannot be regarded as happy.

Another says: "The male is noted for the gibbosity of pinkish-white near base of bill; the lower edge of the swelling is deep red, gradually blending with the black of the bill." There is no pinkish white on the bill, nor any "blending" — gradual or otherwise — of the red and black.

Another describes the feet as "greenish" simply, but there is not the least greenish or olive cast about the feet of the adult drake, and the feet of the female and young male are as brownish and blackish as they are greenish.

Audubon's account of the drake's beak, though better than others, is nevertheless unsatisfactory, for it gives the color of the "bulging part" as "bright orange, paler above," leaving the reader to suppose that the upper part though "paler" is also of an orange tint; and though in his original folio edition there is a show of pure yellow, the orange color is carried too far forward, appearing in front of the nostrils, where the bill is always black, and between the nostrils, where it is always pure yellow. In some of the octavo issues of Audubon (those of 1840-44 and 1871 at least) the plumage is much too highly glossed with blue or blue and purple. The upper parts of the adult drake are, to be sure, somewhat glossy, and the head, with a little of the neck, shows in certain lights a plum-colored iridescence, but in no case is this iridescence very noticeable.

Among the colored illustrations of two of our later ornithological works, the eye of the drake in one case is yellow, instead of deep brown as nature paints it, and in the other white, as in the adult drakes of *deglandi* and *perspicillata*.

Wilson's picture and description published in 1814 (before our American Scoter was separated from the European) were the

beginning of much of our confusion. In 'Fauna Boreali-Americana,' 1831, our bird is fully recognized as a distinct species, but Wilson's plate (which was certainly not colored from any specimen found in our country) is referred to as follows: "It is clear from an inspection of Wilson's plate, that the true *O. nigra* is also found in America, since the coloring he has given to the bill perfectly accords with the English specimens in the British Museum." This was a most natural conclusion, and when in 1834 Nuttall's 'Water Birds' appeared, it included both species as occurring along our coast, i. e. "Scoter Duck" (*nigra*) and "American Scoter Duck" (*americana*).

White-winged Scoter (O. deglandi) and Surf Scoter (O. perspicillata).

I place what I have to say about these two species — or about their descriptions — under a common headline for convenience in presenting some of my more fragmentary notes.

In Wilson's work, Vol. VIII, 1814, the male of *deglandi* (believed by all at that time to be identical with the European variety *O. fusca*) is represented as having the upper mandible black at base, "the rest red." Its bill has been referred to in our own half of the century also, as "black at base and lateral edges; red elsewhere." The writer of this last description probably got the idea of so uniform a red from Wilson, but where on earth did Wilson get it? Surely not from nature. Another writer has lately described *deglandi* in a fashion as original. He says: "Knob on bill black, rest of bill and legs orange." It will be observed that though this later author has chosen a less sanguinary hue than his predecessors, he has carried it considerably farther, continuing it over the legs as well as beak.*

*The colors of the bill and feet (of adult male *deglandi*) are in reality as follows:—

Upper mandible: immediately at base black, this black spreading forward over the elevated portion or knob and continued along the edges of the mandible, sometimes as far as the nail, and sometimes disappearing brokenly before reaching it; sides purplish red, or wine-purple, changing to orange next to the basal black; nail orange, but of a somewhat deeper tint; from nail to knob white; the middle of the bill, in other words, being broadly white from the nail to the black between the nostrils.

Lower mandible: with patch of orange (including nail) at end; back of the orange, white, this white meeting irregularly with basal black which is extended in a somewhat varying degree toward the gonys.

Feet: side of tarsus and toes, excepting inner toe, dull purplish pink or light wine-purple; the inner side (or side next to the other foot), with both sides of the inner toe, orange-vermilion; joints and other portions splashed with black; webs solidly black.

Another bit of Wilson's fallibility may be referred to in this connection. In his article on our White-wing (*deglandi*) which immediately follows his account of our Black Scoter (*americana*) he says: "This and the preceding are frequently confounded together as one and the same by our gunners on the seacoast. The former, however, differs in being of greater size; in having a broad band of white across the wing," etc. A clerical error, to be sure, but how indicative of the inexplicable tendency to misrepresent and confound our 'Coots.' I am wondering if in this very article I have myself made some such clerical or more blamable blunder. If I have, I shall most certainly be in good company, and shall have added new interest to an already amusing list.

Audubon describes the eyes of our White-wing as follows: male "bright yellow" (they are white); female "as in the male but of duller tint" (they are deep brown); and of the eyes of *perspicillata* (which are as in *deglandi*) he says: male "bright yellow-white"; female "as in the male." To be sure Audubon also wrote before *deglandi* was pronounced different from *fusca*, and he may have taken his colors from pictures or descriptions of European birds. I will not attempt, however, to say whether his colors are or are not like those of *fusca*. I have examined no European White-wings (fresh specimens I mean) and dare not trust the testimony of others concerning them; too many errors are being perpetuated by such copying. Scientists on the other side of the water may have failed to note the colors of life, and may have misrepresented their Scoters unwittingly, as we have misrepresented ours.

We all remember how Herbert (Frank Forester) mistook *deglandi* for a nondescript, and that some of the scientists were slow to recognize his mistake. I wonder if any one has ever observed that he (Herbert) was also unfortunate in using in his 'Field Sports' the specific character of *perspicillata* for *americana*. He quotes from Giraud's 'Birds of Long Island,' but unhappily copied from the wrong side of the leaf, — page 329 instead of 330.

While thus retrospective (and captiously inclined?) I very naturally recall that specimen of *deglandi* taken in Alaska, which for a time was referred to *fusca*, and that other distinction without a difference, the supposed variety of *perspicillata* — i.e., *trowbridgii*.

I have already referred to a work in which *americana* is represented with white eyes. The same work contains other evidence of carelessness. The writer informs us that *deglandi* is sometimes "found in company with the Velvet Scoter," a fact hardly worth publishing, as the Velvet Scoter (he is describing our own avifauna) and *deglandi* are one. He also tells us in his account of *perspicillata* that "it was common in summer to see males in the *bimaculata* plumage," but as this term *bimaculata* (the specific name given by Herbert to his supposed nondescript) can only be applied with any technical significance to the plumage of *deglandi*, we are left somewhat in doubt as to his meaning.

In another volume of late date we find the colors of the *perspicillata* male described as follows: "Bill mostly orange red, with a patch of black near the base of the upper mandible, bordered by orange and pale blue; lower mandible pinkish; legs and toes orange, webs dull green."* Perhaps I had better leave the reader to make his comparisons with my foot-note uninterruptedly, but I will add this much: I have examined most carefully numerous specimens in spring, autumn, and winter. I have never seen the least touch of blue on any of the bills (the nearest approach to it being the inconspicuous lavender tint at the root of the nail), neither have I found the least greenish cast on the webs, but the

*The colors referred to (of adult male *perspicillata*) are as follows:

Upper mandible: above at base, including nostrils, dull crimson (or pinkish-purplish crimson), this changed to flame-scarlet over the front of the mandible; nail cadmium-yellow, narrowly edged anteriorly with lighter yellow, and sometimes posteriorly with light lavender; side of mandible with large squarish patch of black at base, this separated from the black feathering above it by orange and from the feathering behind by a narrower edging of crimson; beneath this black patch, and in front of it as far as anterior edge of nostril, or thereabouts, continuously white, the remainder of the side (anterior to white portion), pure orange.

Lower mandible: nail like its fellow above; back of this for a short distance reddish flesh-color terminating irregularly in white, the white continued to the base, with more or less black on the naked skin between the rami.

Feet: outer side of tarsus and toes, excepting inner toe, crimson; the inner side (or side next the other foot) with both sides of the inner toe, orange-chrome deepened in part to orange-vermilion—a little of this color sometimes showing on the outer side of the middle toe; joints and other portions blotchily marked with black; webs solidly black.

Decidedly the most truthfully colored representation of this drake's bill which I have seen is that of Nelson in his 'Report upon Natural History Collections made in Alaska,' plate V. Whatever the faults in the picture, we can readily believe that it was colored, as he says, "from nature."

very conspicuous white of the upper mandible, which he does not even hint at, is discernible a gun-shot away.

I might also point to a modern work in which the bill of the *deglandi* female is painted blue; that of female *perspicillata*, sea-green; the eyes of both, yellow; and where in the text the eyes of the *deglandi* female are still "yellow," and those of female *perspicillata* "yellowish-white." How much prettier and more appropriate for the sex, this blue, green, and yellowish, than the dusky hues used by nature.

It is a pity, perhaps, ever to call attention in print to these mistakes, for if in some far off future the theory of evolution is as fascinating as it is today, what interesting changes might be shown among the Scoters.

HYBRIDISM, AND A DESCRIPTION OF A HYBRID BETWEEN *ANAS BOSCHAS* AND *ANAS AMERICANA*.

BY D. G. ELLIOT.

THE OCCURRENCE of hybridism among birds in a state of nature in certain groups is not infrequent, but it is generally believed that the individual hybrids are infertile, if not in the first certainly in the second generation. If this were not so, the evidences of the existence of these crosses would be exhibited in specimens killed, more often than has been the case up to the present time. Of course it will be readily understood that the probability of the continuance of the peculiarities shown by these hybrids under the most favorable circumstances, and allowing that they were fertile beyond the second generation, is not great, for they would be extinguished by interbreeding with pure-blooded birds in a comparatively brief period of time; otherwise in those families whose members migrate on the same lines of travel, and associate more or less together, there would exist the possibility of a mongrel race supplanting a pure species, and our scientific classification would be thrown into considerable